

Notice of Allowability

Application No.

10/705,287

Applicant(s)

SILVER ET AL

Examiner

Art Unit

DANIEL G. MARIAM

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendt. filed 11/11/03 & a tel. interv. date 5/11/06.
2. ☒ The allowed claim(s) is/are 122-163 (renumbered as 1-42).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.


THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/11/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 5/11/06.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

**DANIEL MIRIAM
PRIMARY EXAMINER**


DANIEL G MARIAM
Primary Examiner
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TERMINAL DISCLAIMER, EXAMINER'S AMENDMENT, AND REASONS FOR ALLOWANCE

Terminal Disclaimer

1. The terminal disclaimer filed on May 27, 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent Number 6,993,192 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Russ Weinzimmer (Reg. No. 36,717) on May 11, 2006.

The application has been amended as follows:

Amend the amended specification (dated November 11, 2003) as follows:

In page 2 of the specification, under the heading "Cross Reference to Related Applications", replace the first paragraph with the following paragraph:

This is a continuation of U.S. Patent Application Serial Number 09/746,147 filed 12/22/2000 which is now U.S. Patent Number 6,658,145 issued on December 2, 2003, which is a continuation of U.S. Patent Application Serial Number 09/001,869, filed 12/31/1997 (now abandoned), which is a continuation-in-part to U.S. Patent Application Serial Number 08/979,588, filed 11/26/1997 (now abandoned).

Amend the claims as follows:

Cancel the originally filed claim 121. Please note, while applicants have canceled claims 1-120 of the originally filed claims by the amendment (See page 3 of the preliminary amendment filed November 11, 2003), and have submitted newly added claims 121-162 (See pages 3-8 of the preliminary amendment), the originally filed claims in fact contain claims 1-121.

Renumber the newly added claims 121-162 as **122-163**.

Amend the newly renumbered claim 122 as follows:

At line 7, delete “pointing” and replace it with “indicating at least a distance and a direction”

At line 7, delete “along” and replace it with “on”

At line 7, after the limitation “boundary” insert “, the model pattern including at least the pattern boundary and the plurality of displacement vectors, the model pattern being for use in geometric pattern matching”

Reasons for allowance

3. Claims 122-163 are allowed. The claims will be renumbered as 1-42.
4. The following is an examiner’s statement of reasons for allowance: the instant invention discloses a method of training a model pattern for use in a geometric pattern matching. Upon acquisition of the digital image of an object, the instant invention detects boundary points so as to form a pattern boundary. Thereafter, the instant invention generates a plurality of displacement vectors, each displacement vector indicating at least a distance and a direction to a nearest point on the pattern boundary, the model pattern including at least the pattern boundary

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and the plurality of displacement vectors, the model pattern being for use in geometric pattern matching. These features are not disclosed or fairly suggested by the closest prior art of Yamada, et al (5,033,099) or by any of the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 4845765, 5033099, 5633951, 5686973, and 6859548; and a publication to Geiger, et al. "Dynamic Programming for Detecting, Tracking, and Matching Deformable contours".


Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL G MARIAM
Primary Examiner
Art Unit 2624

May 11, 2006